PATENT

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Date of Signature and Deposit: August 1, 2006 ____________________
Julie A. Zavoral, Reg. No. 43,304

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants:	Allan J. Wildey, et al.
Application No.:	10/649,289
Filed:	August 27, 2003
Title:	STEERING SYSTEM FOR ARTICULATED VEHICLES
Group Art Unit:	3661
Examiner:	Ronnie M. Mancho
Confirmation No.:	5484
Atty. Docket No.:	900260.90200

SUBMISSION OF APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants hereby submit an Appeal Brief in support of the Notice of Appeal filed May 1, 2006, following a final rejection in the above-listed patent application.

The $500.00 fee for filing an Appeal Brief by a large entity along with any other fees arising as a result of this or any other communication should be charged to Deposit Account No. 17-0055.

Respectfully submitted,

Dated: August 1, 2006

By: ____________________

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants, having filed a timely Notice of Appeal of a Final Action in the above-identified patent application, hereby submit this Appeal Brief in support of patentability.

I. REAL PARTY IN INTEREST

The real party in interest is Timberjack, Inc., 925 Devonshire Avenue, Woodstock, Ontario, Canada, the assignee of record, as evidenced by the assignment recorded at Reel/Frame 013620/0509.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

In the present application, claim 1 has been canceled and claims 2-22 are pending. Claims 2-22 have been finally rejected under 35 U.S.C. 103(a).

IV. STATUS OF AMENDMENTS

No amendments were filed after the final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The appealed claims include six independent claims: claims 2, 4, 18, 19, 20, and 21, as well as dependent claims 3, 5-17, and 22, which all depend from claim 2.

Claim 2 defines a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes an operator controlled steering input device 140, such as described in paragraph 29, and a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering input device 140, to control the valve in response to inputs from the steering input device 140. As described in paragraphs 30 and 31, a sensitivity selector, such as operator input device 110, is communicatively connected to the processor 60 to provide an input signal to the processor that causes the processor to vary the signal output to the valve in accordance with the input signal from the sensitivity selector, wherein the setting of said sensitivity selector is determined directly by an operator.

Claim 3, dependent on claim 2, further defines the steering system as one wherein the operator may set the sensitivity selector to either of at least two different settings, such as a coarse mode and a fine mode, such as specified in paragraph 31. One of the two different settings causes the processor to produce more steering response for a given input from the steering input device 140 than the other. For example, as described at the end of paragraph 24, there will be less (and slower) steering correction for a given input in the fine mode than in the coarse mode.

Claim 4 is directed to a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as

rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes an operator controlled steering input device 140, such as described in paragraph 29, and a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering input device 140, to control the valve 52 in response to inputs from the steering input device 140. As described in paragraphs 37, and 40-42, a sensitivity selector, such as gear selector sensor 80, is communicatively connected to the processor 60 to provide an input signal to the processor 60 that causes the processor 60 to vary the signal output to the valve 52 in accordance with the input signal from the sensitivity selector, wherein the setting of the sensitivity selector is determined by what gear the vehicle is in.

Claim 5, dependent on claim 2, further defines the steering system as one wherein the setting of the sensitivity selector determines the rate at which articulation takes place in response to a given operator input to the steering input device, such as described in paragraph 23.

Claim 6, dependent on claim 2, further defines the steering system as one wherein the setting of the sensitivity selector determines the magnitude of articulation that takes place in response to a given operator input to the steering input device, such as described in paragraph 24.

Claim 7, dependent on claim 2, further defines the steering system as one wherein the setting of the sensitivity selector determines the rate of change of articulation and the magnitude of articulation that takes place in response to a given operator input to the steering input device, such as described in paragraphs 23 and 24.

Claim 8, dependent on claim 2, further defines the steering system as one wherein the steering input device is an electronic joystick 100, as shown in Fig. 1 and described in paragraph 29.

Claim 9, dependent on claim 2, further defines the steering system as one wherein the steering input device is an electronic steering wheel 90, as shown in Fig. 1 and described in paragraph 29.

Claim 10, dependent on claim 2, further defines the steering system as including a positional feedback sensor 70, communicatively connected to the processor 60, for measuring an articulation angle between the first frame and the second frame and communicating the articulation angle to the microprocessor 60, such as shown in Fig. 1 and described in paragraph 27.

Claim 11, dependent on claim 10, further defines the steering system as one wherein the processor 60 controls the valve 52 to articulate the first frame and the second frame into an aligned position when the steering input device is placed in a center position, such as described in paragraph 44.

Claim 12, dependent on claim 2, further defines the steering system as including an operator input device 110 communicatively connected to the processor for allowing an operator to input a tire size, such as described in paragraphs 30 and 32.

Claim 13, dependent on claim 12, further defines the steering system as one wherein the processor 60 determines a maximum articulation angle between the first frame and the second frame based on the tire size input by the operator, such as described in paragraph 32.

Claim 14, dependent on claim 13, further defines the steering system as one wherein the processor 60 controls the valve 52 to prevent articulation of the first frame and the second frame past the maximum articulation angle, as described in paragraphs 32 and 33.

Claim 15, dependent on claim 14, further defines the steering system as one wherein the processor 60 controls the valve 52 to slow down articulation as the maximum articulation angle is approached, as suggested in paragraphs 33 and 43.

Claim 16, dependent on claim 2, further defines the steering system as one wherein the processor 60 controls the rate of displacement of the valve 52, as described in paragraph 25.

Claim 17, dependent on claim 16, further defines the steering system as one wherein the processor 60 controls the valve 52 so as to gradually start and stop articulation, as described in paragraph 33.

Claim 18 defines a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as

described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes an operator controlled steering input device 140, such as described in paragraph 29, and a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering input device 140, to control the valve in response to inputs from the steering input device 140. The processor 60 controls the valve 52 to align axes of the first frame and the second frame to be generally parallel from a generally non-parallel position when the steering input device is returned to a center position, as described in paragraph 44.

Claim 19 defines a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes an operator controlled steering input device 140, such as described in paragraph 29, an input device such as device 110 for an operator to input tire size, and a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering input device 140, to control the valve in response to inputs from the steering input device 140. Further, the processor 60 controls the valve 52 so as not to exceed a maximum articulation angle between the first and second frames which the processor sets based on the tire size input by the operator, such as described in paragraph 32.

Claim 20 defines a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown

in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes an operator controlled steering input device 140, such as described in paragraph 29, and a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering input device 140, to control the valve in response to inputs from the steering input device 140. The steering system also includes an interface operatively connecting the steering input device to the processor, wherein the processor operates the proportional solenoid valve in response to inputs from the steering input device, and wherein the interface is the same for different types of steering input devices, as described in paragraphs 29 and 45.

Claim 21 defines a steering system for an articulated vehicle, such as shown in Fig. 1, and includes a first frame, such as front frame 10 or rear frame 20, and a second frame, such as rear frame 20 or front frame 10, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18. A proportional solenoid actuated hydraulic valve 52, such as shown in Fig. 2 and described in paragraphs 19 and 21, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder. The steering system also includes at least one other solenoid valve, such as a valve in control valve block 120, to control at least one other function such as hoist cylinders, tilt cylinders, a harvesting arm cylinder, and accumulating arm cylinder, etc., as shown in phantom in Fig. 1. A source of pressurized hydraulic fluid such as from tank T shown in Fig. 2 supplies hydraulic fluid under pressure to both of the valves. The steering system includes an operator controlled steering input device 140, such as described in paragraph 29, and a processor, such as microprocessor 60, communicatively connected to the steering valve in response to inputs from the steering input device, and communicatively connected to the other solenoid valve to control it, wherein the processor gives priority of flow from the source of hydraulic fluid to the steering valve, as described in paragraph 22.

Claim 22 dependent on claim 2, further defines the steering system as one wherein the valve is a four-way, three-position hydraulic valve, such as valve 52 shown in Fig. 2.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 2-22 stand rejected under 35 U.S.C. sec. 103(a) as being unpatentable over U.S. Patent No. 6,039,133 to Zulu ("Zulu") in view of U.S. Patent No. 6,863,144 to Brandt et al. ("Brandt").

VII. ARGUMENT

A. Independent Claim 2 and respective dependent claims

Regarding claim 2, Zulu describes a steering control system for an articulating work machine but fails to disclose or suggest a sensitivity selector wherein a setting of the sensitivity selector may be determined directly by an operator as defined by claim 2. The articulated angle sensor 79 of Zulu is not a sensitivity selector having a setting that may be determined by an operator, rather it is a sensor that measures the "actual angle of articulation between the front frame structure 12 and the rear frame structure 14" (col. 5, lines 34-37). The processor of Zulu processes the signal from the angle sensor along with signals from a position sensor and speed sensors in order to control the position of the proportional valves (col. 5, lines 48-51). The data from the articulated angle sensor is used by the processor to limit the actual angle of articulation to a magnitude less than the threshold angle of articulation and to limit the rate of change of the angle of articulation as the threshold angle of articulation is approached (col. 6, lines 25-40). However, the articulated angle sensor 79 does not have any "setting" that can be set by an operator.

Brandt describes a control system for a power machine such as an all-wheel skid steer loader (col. 3, lines 30-33) wherein the control system has various selectable parameters. Brandt describes providing an operator input to allow changing the steering response to a given steering input by the operator, e.g., between a high steering response mode and a low steering response mode (col. 6, lines 44-67). However, the Examiner has failed to provide appropriate reasoning as to why an articulated vehicle designer of ordinary skill would be motivated to apply the teaching of Brandt, relating to changing the steering response of a skid steer loader, to an articulated vehicle. The Examiner states that "it would have been obvious to one of ordinary skill in the art of work machines to modify the Zulu device as taught by Brandt et for the purpose of varying steering modes of operation in different working conditions." The steering of a power machine such as the skid steer loader of Brandt can be controlled in one of several modes such as illustrated by Figs 3A-3E because each of the wheels is independently steerable (col. 4, lines 65-

67). This is not the case for an articulated vehicle, in which the steering is dependent on changing an articulation angle between a front frame and a rear frame via the extension and retraction of hydraulic cylinders. Because appropriate motivation to combine the selectable parameters of the steering control system of the skid steer loader of Brandt with the articulating vehicle of Zulu is lacking, claim 2 and its dependent claims define over these references.

In addition, claim 12 further includes an operator input device communicatively connected to the processor for allowing an operator to input a tire size. Both Zulu and Brandt fail to disclose or suggest that an operator input device may allow an operator to input a tire size.

Claim 13 further includes the limitation that the processor determines a maximum articulation angle between the first frame and the second frame based on the tire size input by the operator. Both Zulu and Brandt fail to disclose or suggest that the processor may determine a maximum articulation angle based on a tire size input. Zulu discloses a threshold angle of articulation and predetermined maximum angle of articulation but does not disclose or suggest that these angles are determined by a processor based on a tire size input. Zulu does not disclosure or suggest how the maximum angle is determined.

B. Independent Claim 4

Regarding claim 4, both Zulu and Brandt fail to disclose or suggest a steering system having a sensitivity selector, wherein the setting of the selectivity selector is determined by what gear the vehicle is in as defined by claim 4. While Zulu describes a control system including a speed sensor, and limiting a rate of change of a threshold angle of articulation based on the speed of the articulating work machine (col. 2, lines 64-67), Zulu fails to describe a steering control system that determines the gear the vehicle is in. Similarly, Brandt fails to describe a steering control system that determines the gear the vehicle is in. Thus neither Zulu nor Brandt describe or suggest a system wherein the setting of the sensitivity selector is determined by what gear the vehicle is in, and claim 4 defines over these two references.

C. Independent Claim 18

Regarding claim 18, both Zulu and Brandt fail to disclose or suggest that the processor may control the valves to align the axes of two frames to be generally parallel from a generally non-parallel position in response to a steering input device being returned to a center position, as defined by claim 18. Zulu discloses that when the operator positions the control handle so as to

direct the work machine in a straight direction--which means that the axes of the two frames are already parallel, the processor will not generate control signals so that the work vehicle continues in a straight direction (see col. 9, lines 34-67). Zulu is silent regarding the operation of the control system when the axes are in a generally non-parallel position and the steering input device is returned to a center position.

D. Independent Claim 19

Regarding claim 19, both Zulu and Brandt fail to disclose or suggest that the operator may input the tire size and that the maximum articulation angle may be based on the tire size input by the operator. Tire size is simply not mentioned in either Zulu or Brandt.

E. Independent Claim 20

Regarding claim 20, both Zulu and Brandt fail to disclose or suggest that an interface operatively connecting a steering input device to a processor may be the same for different types of steering input devices. Zulu discloses that the "manual steering actuator 53 includes a position sensor 55 operatively coupled to a control handle 56" (col. 5, lines 17-18). Zulu does not disclose or suggest any other type of steering input device other than a control handle and does not disclose or suggest that any other type of steering input device would operate with the manual steering actuator 53 and position sensor 55. Similarly, Brandt merely discloses a single type of steering input device, namely, a joystick having a variety of features.

F. Independent Claim 21

Regarding claim 21, both Zulu and Brandt fail to disclose or suggest that a processor may give priority of flow from the source of hydraulic fluid to the steering valve.

VIII. CONCLUSION

In view of the above, Appellants request reversal of the final rejection regarding claims 2-22 and a Notice of Allowance.

Respectfully submitted,

Dated: Aug. 1, 2006

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APPENDIX A
CLAIMS

1. (Canceled)

2. (Previously Presented) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid actuated hydraulic valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) an operator controlled steering input device;

f) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device; and

g) a sensitivity selector communicatively connected to the processor to provide an input signal to the processor that causes the processor to vary the signal output to the valve in accordance with the input signal from the sensitivity selector, wherein the setting of said sensitivity selector is determined directly by an operator.

3. (Original) A steering system for an articulated vehicle as recited in claim 2, wherein the operator may set the sensitivity selector to either of at least two different settings, one of which causes the processor to produces more steering response for a given input from the steering input device than the other.

4. (Previously Presented) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid actuated hydraulic valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) an operator controlled steering input device;

f) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device; and

g) a sensitivity selector communicatively connected to the processor to provide an input signal to the processor that causes the processor to vary the signal output to the valve in accordance with the input signal from the sensitivity selector, wherein the setting of the sensitivity selector is determined by what gear the vehicle is in.

5. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the setting of the sensitivity selector determines the rate at which articulation takes place in response to a given operator input to the steering input device.

6. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the setting of the sensitivity selector determines the magnitude of articulation that takes place in response to a given operator input to the steering input device.

7. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the setting of the sensitivity selector determines the rate of change of articulation and the magnitude of articulation that takes place in response to a given operator input to the steering input device.

8. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the steering input device is an electronic joystick.

9. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the steering input device is an electronic steering wheel.

10. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, further comprising a positional feedback sensor, communicatively connected to the processor, for measuring an articulation angle between the first frame and the second frame and communicating the articulation angle to the microprocessor.

11. (Previously Presented) A steering system for an articulated vehicle as recited in claim 10, wherein the processor controls the valve to articulate the first frame and the second frame into an aligned position when the steering input device is placed in a center position.

12. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, further comprising an operator input device communicatively connected to the processor for allowing an operator to input a tire size.

13. (Original) A steering system for an articulated vehicle as recited in claim 12, wherein the processor determines a maximum articulation angle between the first frame and the second frame based on the tire size input by the operator.

14. (Original) A steering system for an articulated vehicle as recited in claim 13, wherein the processor controls the valve to prevent articulation of the first frame and the second frame past the maximum articulation angle.

15. (Original) A steering system for an articulated vehicle as recited in claim 14, wherein the processor controls the valve to slow down articulation as the maximum articulation angle is approached.

16. (Previously Presented) A steering system for an articulated vehicle as recited in claim 2, wherein the processor controls the rate of displacement of the valve.

17. (Original) A steering system for an articulated vehicle as recited in claim 16, wherein the processor controls the valve so as to gradually start and stop articulation.

18. (Previously Presented) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) an operator controlled steering input device;

f) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device;

g) wherein the processor controls the valve to align axes of the first frame and the second frame to be generally parallel from a generally non-parallel position when the steering input device is returned to a center position.

19. (Original) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) an operator controlled steering input device;

f) an input device for an operator to input tire size;

g) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device;

h) wherein the processor controls the valve so as not to exceed a maximum articulation angle between the first and second frames which the processor sets based on the tire size input by the operator.

20. (Original) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) an operator controlled steering input device;

f) a processor;

g) an interface operatively connecting the steering input device to the processor;

h) wherein the processor operates the proportional solenoid valve in response to inputs from the steering input device;

i) wherein the interface is the same for different types of steering input devices.

21. (Original) A steering system for an articulated vehicle, comprising:

a) a first frame;

b) a second frame pivotally connected to the first frame by a pivot joint;

c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another;

d) a proportional solenoid steering valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

e) at least one other solenoid valve to control at least one other function;

f) a source of pressurized hydraulic fluid which supplies hydraulic fluid under pressure to both of said valves;

g) an operator controlled steering input device; and

h) a processor communicatively connected to the steering valve and to the steering input device to control the steering valve in response to inputs from the steering input device, and communicatively connected to the other solenoid valve to control it;

i) wherein the processor gives priority of flow from the source of hydraulic fluid to the steering valve.

22. (Previously Presented) A steering system for an articulated vehicle as claimed in claim 2, wherein the valve is a four-way, three-position hydraulic valve.

APPENDIX B
EVIDENCE

There is no evidence, other than the documents cited in the final Office Action.

APPENDIX C
RELATED PROCEEDINGS

There are no decisions in related proceedings.